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U.S. Department of the Interior • U.S. Geological Survey

# MINERAL INDUSTRY SURVEYS

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Gordon P. Eaton, Director

Reston, VA 20192

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**For information, call:**

Earle B. Amey, Tungsten Specialist (703) 648-4969  
Fax (703) 648-7757

**Tungsten, Monthly**

**For MINES-DATA computer bulletin board call:**

(703) 648-7796 (2400,N,8,1) for computer access  
(703) 648-7743 for technical assistance

**For MINES FaxBack call:**

(703) 648-4999

## TUNGSTEN IN MAY 1996

Based upon net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from hydrogen reduced metal powder, the U.S. industrial tungsten activity for May 1996 remained about the same compared with that of April 1996, according to the U.S. Geological Survey. U.S. industrial tungsten activity for the first 5 months of 1996 was 4% higher than for the same period of 1995. Reported consumption of tungsten in all end-use products through May 1996 increased by approximately 2% compared with reported consumption of tungsten through the same period of 1995.

April 1996 trade data are included in this issue. Trade data for May 1996 will appear in a subsequent issue.

The combined wolframite and scheelite prices from the Metal Bulletin were:

Low \$52/mtu WO<sub>3</sub> (\$47.17/stu WO<sub>3</sub>), June 1-30, 1996

High \$62/mtu WO<sub>3</sub> (\$56.25/stu WO<sub>3</sub>), June 1-30, 1996

Revised Update. -The Defense Logistics Agency (DLA) has proposed to sell its entire inventory of tungsten through the year 2005. On April 16, 1996, DLA sent to Congress the proposed legislation that calls for new disposals. DLA would most likely conduct sales on a specified amount per year which would be subject to a Congressional mandate not to disrupt sales. No timetable has been set for Congress to act on this proposal. [Platt's Metals Week, April 29, 1996, p.1.] The material is in the form of tungsten ore and concentrates, metal, carbides, and ferrotungsten.

Update. -Mitsubishi Materials Corp. and China's Tianjin Tool Works established a joint venture to build a new tungsten carbide tool plant in China. This facility will be located in an existing Tianjin Tool Works plant in Tianjin, northern China. Operation will begin in September 1996; about 50 people will be employed; and indexable inserts and carbide solid end mills will be produced for local company supplies. [American Metal Market, July 11, 1996, p.6.]

TABLE 1  
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

Period	Concentrate			Reported scrap consumption	Intermediate products		
	Reported consumption	Imports for consumption	Stocks, end of period 2/		Net production 3/	Reported consumption 4/	Stocks, end of period 5/
1995: p/ January-December	6,320	4,180	631	2,350	8,190	11,900	1,290
1996:							
January	479 r/	310	486 r/	231 r/	718 r/	993 r/	1,220 r/
February	475 r/	162	438 r/	152 r/	933 r/	1,000 r/	1,360 r/
March	504 r/	155	559 r/	192 r/	845 r/	957 r/	1,440 r/
April	517 r/	148	537 r/	186 r/	749 r/	948 r/	1,480 r/
May	447	NA	594	169	745	965	1,530
Total	2,420	775	XX	930	3,990	4,870	XX

p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Reported by consumers.

3/ Net production of tungsten metal powder, tungsten carbide powder, chemicals, and other products.

4/ Includes data on tungsten carbide powder from secondary sources.

5/ Reported by producers.

TABLE 2  
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF  
AMMONIUM PARATUNGSTATE, BY MONTH 1/

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period 2/
1995: p/ January-December	2,580 3/	7,690	338
1996:			
January	565 r/	598 r/	370
February	W	630 r/	366 r/
March	556	782 r/	357 r/
April	568 r/	890 r/	331 r/
May	W	737	318
Total	1,690	3,640	XX

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data.

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Producers and consumers.

3/ Excludes seven months of withheld data.

TABLE 3  
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS 1/

(Metric tons, tungsten content)

Product	Net production 2/			Stocks at end of period	
	1996			1996	
	1995 p/	May	Year to date	1995 p/	May
Metal powder	2,910	415	2,150	818	965
Tungsten carbide powder (made from metal powder)	5,280	330	1,840	348	389
Cast and crystalline carbide powder; other	W	--	--	W	W
Chemicals	W	W	W	126	178
Total	8,190	745	3,990	1,290	1,530

p/ Preliminary. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Gross production less quantity used to make other products in table.

TABLE 4  
U.S. REPORTED CONSUMPTION, BY END USE, AND CONSUMER STOCKS OF TUNGSTEN PRODUCTS IN MAY 1996 1/

(Metric tons, tungsten content)

End Use	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Scheelite (natural, synthetic)	Tungsten scrap 2/	Other tungsten materials 3/	Total	Total year to date
Steel:								
Stainless and heat-resisting	W	--	--	--	W	--	W	W
Alloy	1	--	--	--	--	--	1	8
Tool	19	--	--	--	--	--	19	67
Total	20	--	--	--	W	--	20	75
Superalloys	--	W	2	--	15	1	18	93
Alloys (excludes steels and superalloys):								
Cutting and wear-resistant materials	--	10	529	--	W	--	539	2,650
Other alloys 4/	--	W	W	--	W	--	W	1
Mill products made from metal powder	--	36	--	--	--	--	36	321
Chemical and ceramic uses	--	W	W	--	--	W	W	W
Miscellaneous and unspecified	4	13	335	--	W	W	352	1,720
Total	24	59	866 5/	--	15	1	965	XX
Total consumption, year to date	148	386	4,240 5/	--	75	16	--	4,870
Stocks, May 31, 1996	43	25	519 5/	1	34	17	639	XX

W Withheld to avoid disclosing company proprietary data. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Does not include that used in making primary tungsten products.

3/ Includes tungsten chemicals.

4/ Includes welding and hard-facing rods and materials and nonferrous alloys.

5/ Based on reported consumption plus information from secondary sources; includes estimates.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of origin	Con- cen- trate	Ammonium tungstates	Ferro- tungsten	Lumps, grains, powders	Tungsten carbide	Other e/ 2/	Total	Total year to date
1995:								
Total	4,180	1,290	652	312	476	3,260	10,200	XX
1996:								
February	162	85	1	37	35	266	586	XX
March	155	194	103	7	29	260	749	XX
April:								
Australia	--	--	--	--	--	--	--	3
Austria	--	--	--	--	(3/)	3	3	5
Bolivia	15	--	--	--	--	--	15	190
Canada	--	--	--	(3/)	5	--	5	21
China	--	30	53	7	2	52	144	1,450
Czech Republic	--	--	--	3	--	--	3	6
Germany	--	13	--	4	7	(3/)	24	92
Hong Kong	--	--	--	--	--	39	39	72
Hungary	--	--	--	--	--	1	1	2
Israel	--	--	--	--	--	(3/)	(3/)	2
Japan	--	--	--	3	(3/)	5	8	25
Korea, Republic of	--	--	--	--	--	--	--	6
Mexico	--	--	--	--	--	1	1	16
Netherlands	--	--	--	--	--	(3/)	(3/)	3
Peru	5	--	--	--	--	--	5	217
Portugal	10	--	--	--	--	--	10	81
Russia	118	--	28	8	--	20	174	444
Sweden	--	--	--	6	--	--	6	6
Switzerland	--	--	--	--	--	(3/)	(3/)	2
United Kingdom	--	--	--	--	--	(3/)	(3/)	86
Uzbekistan	--	--	--	--	--	--	--	30
Total	148	43	81	31	15	122	440	XX
Total, year to date	776	583	215	100	124	962	XX	2,760

e/ Tungsten content estimated in part. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes calcium, potassium, and sodium tungstates, mixtures and materials in chief value tungsten, tungsten oxide, tungstic acid, unwrought ingots and shot, other unwrought tungsten and materials, wrought tungsten, and other tungsten compounds.

3/ Less than 1/2 unit.

Note: Imports of waste and scrap in April 1996 totaled 95 metric tons, tungsten content.

Source: Bureau of the Census.

TABLE 6  
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of destination	Con- cen- trate	Ammonium tungstates	Metal powder e/	Tungsten carbide	Other e/ 2/	Total	Total year to date
1995:							
Total	5	238	484	1,670	369	2,760	XX
1996:							
February	(3/)	(3/)	15	132	27	174	XX
March	--	--	11	132	35	177	XX
April:							
Australia	--	--	--	1	(3/)	1	7
Austria	--	--	--	--	--	--	2
Belgium	--	--	--	1	--	1	3
Brazil	--	--	--	--	(3/)	(3/)	4
Canada	--	--	2	42	4	48	179
China	--	--	(3/)	--	--	(3/)	14
France	--	--	--	7	(3/)	7	21
Germany	--	--	3	14	7	24	179
Hondruas	--	--	18	--	--	18	18
Hong Kong	--	--	--	--	2	2	3
India	--	--	--	--	1	1	7
Ireland	--	--	--	(3/)	(3/)	(3/)	2
Israel	--	--	--	4	(3/)	4	4
Italy	--	--	1	8	1	10	40
Japan	--	30	(3/)	1	2	33	76
Korea, Republic of	--	--	--	(3/)	1	1	6
Luxembourg	--	--	--	2	--	2	6
Mexico	--	--	1	2	3	6	14
Netherlands	--	--	--	--	(3/)	(3/)	7
South Africa	--	--	(3/)	(3/)	(3/)	1	13
Spain	--	--	--	--	1	1	2
Sweden	--	--	--	10	(3/)	10	42
Switzerland	--	--	--	--	(3/)	(3/)	3
Taiwan	--	--	--	1	3	4	16
United Kingdom	--	--	(3/)	(3/)	1	1	33
Venezuela	--	--	--	(3/)	--	(3/)	2
Total	--	30	26	94	28	178	XX
Total, year to date	7	49	79	458	113	XX	705

e/ Tungsten content estimated in part. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes calcium, potassium, and sodium tungstates, mixtures and materials in chief value tungsten, tungstic acid, unwrought ingots and shot, other unwrought tungsten and materials, wrought tungsten, and other tungsten compounds.

3/ Less than 1/2 unit.

Note: Exports of waste and scrap in April 1996 totaled 96 metric tons, tungsten content.

Source: Bureau of the Census.